## ISSUE SLIP STAPLE AREA (for additional cross references)

| 2C SITION                 | INITIALS | ID NO. | DATE       |
|---------------------------|----------|--------|------------|
| FEE DETERMINATION         | MM       |        | 03 - 30-0/ |
| O.I.P.E. CLASSIFIER       |          | 59     | 426/       |
| FORMALITY REVIEW          | .610     | SX     | Stoles     |
| RESPONSE FORMALITY REVIEW |          | 5-1-5  |            |

## INDEX OF CLAIMS

| Rejected                     | N Non-elected |
|------------------------------|---------------|
| = Allowed                    | IInterference |
| — (Through numeral) Canceled | A Appeal      |
| ÷ Restricted                 | O Objected    |

|              |          |       |      |            |         |   |   | ÷  | -   | •• | ••• | ••••     | ••• | ••• |    | ••• | •••• |
|--------------|----------|-------|------|------------|---------|---|---|----|-----|----|-----|----------|-----|-----|----|-----|------|
| Cla          | im       |       |      |            |         |   | _ | Da | ıte | _  | _   | -        |     |     | _  |     | ٦    |
| Ť            |          | 21    | 4    | ~          |         |   | T | _  | T   |    | Т   | П        |     | Т   | _  | Г   | 7    |
| Final        | Original | 70.5- | 1116 | 1          | 80      |   |   |    | ١   |    |     |          |     |     |    |     | ١    |
| $\neg$       | ۾        | 7     | 2    | Ļ          | 7       | - | + |    | +   |    | ł   | -        | -   | +   | _  | ŀ   | ┥    |
| $\dashv$     | 2        | ۴     | F    | ř          | 7       | - | + | _  | +   | _  | t   | ┪        | _   | 1   | _  | H   | ┨    |
| _            | 3        | Н     | t    | H          | V       | ۲ | + |    | †   | _  | t   | -        |     | 1   |    | H   | ヿ゙   |
|              | ¥        | H     | H    | H          | ř       | H | + | _  | +   | _  | t   | _        | H   | +   | _  | ┢   | ٦    |
| _            | 2        | H     | t    | t          | ┝       | H | + |    | †   | _  | t   | -        |     | 1   |    | t   | 7    |
| _            | 6        | Н     | t    | H          | V       | H | 1 | -  | †   |    | t   | _        | Г   | ┪   | _  | t   | ٦    |
|              | 7        | H     | t    | ,          | .,      | ۲ | 1 | _  | 7   | _  | t   | _        | t   | 7   | _  | T   | ٦    |
| $\vdash$     | 8        | H     | h    | Ļ          | ۲       | H | 7 |    | 7   | _  | t   |          | Г   | ┪   | _  | t   | 7    |
| <u> </u>     | 9        | H     | Ţ    | <b>y</b> _ | ┖       | T | 7 | _  | 7   |    | †   | _        | t   | 7   | _  | T   | ٦    |
| <del>-</del> | 10       | H     | †    | 7          | v       | t | ┪ | -  | 7   | _  | †   | _        | r   |     |    | t   |      |
| $\vdash$     | 11       | Ħ     | t    | Ŋ          | H       | T |   |    | 1   | _  | †   | _        |     | ٦   |    | Ť   | 7    |
| H            | 12       | ۲t    | ť    | بد<br>ا    | Т       | t |   | Г  | 7   | _  | †   |          |     |     |    | T   | ٦    |
| <b></b>      | 13       | Ħ     | t    | t          | Γ       | T |   | _  | 7   |    | 1   |          | Γ   |     |    | Τ   | 7    |
| _            | 14       | -     | t    | t          | T       | ١ |   |    | ٦   |    | 1   |          | Γ   |     |    | Γ   |      |
|              | 15       |       | 1    | T          | Π       | T |   | Г  | 7   |    | 1   |          | Γ   |     |    | I   |      |
|              | 16       |       | T    | 1          | Π       | T |   | Г  | 7   |    | 1   |          | Ī.  |     |    | Ι   |      |
| 5_           | 17       | Π     | 1    | Ť          | T       | T |   |    | _   |    | 1   |          |     |     |    | Ι   |      |
| 1            | 18       | П     | Ť    | T          |         | T | _ | Г  |     | _  | 1   |          | Γ   |     | Г  | T   |      |
|              | 19       | Ħ     | T    | +          |         | T |   | Г  |     |    | 7   |          | Γ   |     |    | Τ   |      |
| ĺ            | 20       | _     | 1    | N          |         | T |   | Γ  |     |    | ٦   | _        | Γ   |     | Г  | T   |      |
| 1-           | 21       | -     | Ť    | -          | V       | t | _ | -  | -   |    | 1   | _        | t   | _   | Ι- | Ť   |      |
| ┢╌           | 22       | -     | †    |            |         | t |   | H  | _   | -  | Ť   |          | t   |     | Г  | T   |      |
| ┢            | 23       |       | †    |            | U       | t |   | r  | -   | Н  | 1   |          | t   | _   |    | Ť   |      |
| _            | 24       |       | †    |            | 1       | t |   | T  | _   | Г  | 7   |          | Ť   | _   | T  | Ť   |      |
| Н            | 25       | :     | 1    |            | 1       | Ť | _ | t  |     |    |     |          | T   | _   |    | Ť   |      |
|              | 26       |       | 1    | _          | 1       | Ţ |   | Γ  |     |    |     |          | T   |     | Γ  | Ţ   |      |
|              | 27       | 1     | 1    |            | 1       | Ť | _ | T  | _   | Γ  |     |          | T   |     |    |     |      |
|              | 28       |       | 7    |            | T       | T |   | T  |     |    |     |          | T   |     | L  | I   |      |
|              | 29       | ī     | 1    |            |         | T |   | Γ  |     |    |     |          |     |     |    |     |      |
|              | 30       | )     | 1    |            |         | I |   | Γ  |     |    |     |          | I   |     |    | I   |      |
|              | 3        | _     | ]    | _          | Ι       | Ι | _ | I  |     | Ĺ  | _   |          | I   | _   | Ĺ  | Ţ   |      |
|              | 32       |       |      | _          |         | I |   | Ĺ  | _   | Ĺ  | _   |          | 1   |     | L  |     |      |
|              | 3        |       |      |            |         | Ţ |   | Ĺ  |     | Ĺ  |     | L        | 1   |     | 1  | 1   |      |
|              | 34       |       |      |            |         | 1 |   | 1  |     |    |     | _        | 1   |     | L  | 1   | _    |
| L            | 3        |       |      |            | 1       | 1 |   | 1  |     | L  |     | L        | 1   |     | 1  | _ļ  |      |
| L            | 36       |       | _    | L          | 1       | 4 | _ | 1  |     | 1  |     | $\vdash$ | 4   | _   | 1  | 1   |      |
| L            | 3        |       | _    | _          | $\perp$ | _ |   | 1  | _   | 1  | _   | $\vdash$ | 4   |     | 4  | 4   | _    |
| L            | 3        | -     |      | L          | 1       | 4 | _ | 1  |     | 1  |     | 1        | 4   |     | +  | 4   |      |
| _            | 3        | -     | _    | L          | - -     |   |   | 1  | _   | ╀  |     | L        | 4   |     | +  | 4   |      |
| _            | 4        |       | _    | L          | 1       | _ |   | 1  | _   | 1  |     | 1        | 4   |     | +  | _   | _    |
| L            | 4        | _     |      | L          | 1       |   |   | 1  |     | L  |     | L        | _   |     | 1  | _   |      |
|              | 4:       |       | _    | Ĺ          | 1       |   | L | 1  |     | 1  |     | L        | 1   | _   | 1  | _   |      |
| Ĺ            | 4        |       | _    | L          |         |   |   | 1  |     | 1  |     | L        | _   |     | 1  |     | _    |
|              | 4        | _     | _    | Ĺ          |         |   |   |    | _   | 1  |     | L        |     |     | 1  |     | _    |
|              | 4        |       | _    | Ĺ          | $\perp$ |   | Ĺ | 1  |     | 1  |     | L        | _   |     | 1  |     | _    |
| L            | 4        | _     | _    | L          | 1       |   | L | 1  |     | 1  |     | 1        |     | _   | 1  |     | _    |
|              | 4        |       | _    | L          |         |   | L | 1  | _   | 1  |     | L        |     |     | 1  |     | L    |
|              | 4        |       |      |            | I       |   | Ĺ | I  | _   | 1  |     | $\perp$  |     |     | 1  | _   | L    |
| Г            | 4        | 9     | _    |            | T       | _ |   |    |     |    |     |          |     |     | 1  |     | _    |

| Cla      | im       | m   |    |          |          |   |          |              | Date |           |          |           |   |              |          |          |  |
|----------|----------|-----|----|----------|----------|---|----------|--------------|------|-----------|----------|-----------|---|--------------|----------|----------|--|
| Final    | Original |     |    |          |          |   |          |              |      |           |          |           |   |              |          |          |  |
|          | 51       |     |    | T        |          | Γ |          |              | Ţ    |           |          |           |   |              |          | _]       |  |
| _        | 52       |     | Г  | T        |          | Γ |          |              | T    |           |          | Т         |   |              | Ţ        | 7        |  |
| _        | 53       |     | ┢  | †        |          | ۲ |          |              | 1    | _         |          | T         |   |              | T        | ٦        |  |
| -        | 54       | ├─  | ╁  | +        |          | t |          | _            | t    |           | _        | t         | - | _            | t        | -        |  |
| $\vdash$ | 55       | 一   | ╁  | †        |          | t |          |              | t    |           |          | †         |   | Г            | t        | ┪        |  |
| $\vdash$ | 56       | ┢   | H  | +        | _        | t |          | -            | †    | _         | r        | t         | T | -            | t        | ヿ        |  |
| ┝        | 57       | -   | H  | +        |          | t |          |              | t    |           | ┢        | t         | Т | -            | t        | ᅥ        |  |
| -        | 58       | -   | H  | +        | _        | t | _        | ┢            | †    |           | ┢        | t         |   | ┢─           | t        | ┪        |  |
| $\vdash$ | 59       | -   | H  | ┪        |          | t |          | ┝            | †    | _         | -        | t         | _ | ┢            | t        | ┪        |  |
| ┝        | 60       | _   | ╁  | +        | _        | t |          | ┝            | †    |           |          | +         |   | -            | †        | ᅥ        |  |
| $\vdash$ | 61       |     | ╁  | +        | _        | t | _        | H            | +    | _         | -        | 十         |   | ┢            | †        | $\dashv$ |  |
| ├        | 62       | -   | H  | +        |          | t | _        | -            | †    | _         | -        | +         | _ | -            | t        | $\dashv$ |  |
| ├        | 63       | +-  | t  | ┨        |          | t |          | -            | +    | _         | -        | +         |   | ┢            | †        | _        |  |
| $\vdash$ | 64       |     | ╁  | ┪        | _        | t | -        | ┝            | +    |           | ┝        | +         | _ | ┢            | †        | $\dashv$ |  |
| -        | 65       | -   | ╁  | ┨        |          | t |          | ⊢            | +    | _         | 1        | +         |   | ┢            | †        | ᅥ        |  |
| $\vdash$ | 66       |     | ╁  | ┨        | -        | t |          | ┝            | 1    |           | ┢        | +         |   | -            | †        | 一        |  |
| -        | 67       | -   | ╁  | $\dashv$ |          | t |          | ┢            | +    |           | +-       | $^{+}$    |   | t            | †        | ┪        |  |
|          | 68       |     | ╁  | 1        | -        | t | -        | ╁╴           | 1    | _         | ┢        | +         | _ | $\vdash$     | 1        | 7        |  |
| -        | 69       | -   | t  | ┥        | _        | + |          | <del> </del> | 1    | _         | -        | +         | _ | -            | †        | -        |  |
| -        | -        |     | +  | _        | _        | + |          | ╁            | +    |           | ╁        | +         | - | +            | +        | -        |  |
| $\vdash$ | 70       | +   | +- | _        | _        | + | _        | ╀            | 4    |           | ╀        | ╁         | _ | ⊢            | +        | -        |  |
| -        | 71       | -   | ╀  | _        | -        | + | _        | ╀            | 4    | _         | $\vdash$ | ╁         | _ | ╁            | +        | -        |  |
| $\vdash$ | 72       |     | +- | _        | H        | + |          | ╀            | -    | _         | ╀        | +         |   | ╁            | +        |          |  |
| $\vdash$ | 73       | -   | +  | _        | ⊢        | + |          | +            | 4    | -         | ļ        | +         |   | ╁            | 4        | _        |  |
| $\vdash$ | 74       |     | +  | _        | $\vdash$ | + |          | ╄            | _    | _         | ╀        | +         | _ | ╀            | 4        | _        |  |
| $\vdash$ | 75       | _   | +  | _        | $\vdash$ | 4 | _        | ╀            |      | -         | ╀        | +         | _ | ╀            | -        |          |  |
| $\vdash$ | 76<br>77 |     | +  | _        | -        | + |          | ╀╌           | -    | _         | ┼        | +         |   | ╁            | $\dashv$ | _        |  |
| <u> </u> | _        | -   | +  | _        | -        | + | -        | ╁            |      | H         | +-       | +         | _ | ╁            | -        | _        |  |
| -        | 78       |     | +  |          | -        | 4 | _        | ╀            | _    | -         | ╁        | +         |   | ╀            | -        | -        |  |
| -        | ┵        |     | +  |          | ┡        | 4 |          | ╀            | _    | -         | ╀        | +         | _ | ╀            | 4        |          |  |
| $\vdash$ | 80       | _   | +  | _        | ┝        | 4 |          | ╀            | _    |           | +        | +         |   | ╁            | -        |          |  |
| $\vdash$ | 8        | _   | 4. | _        | ⊢        | 4 | _        | ╀            | _    | -         | ╀        | +         |   | +            | -        | _        |  |
| $\vdash$ | 82       | -   | 4  |          | L        | - | _        | +            | -    | ⊢         | ╀        | +         | - | ╀            | -        | -        |  |
| $\vdash$ | 83       |     | +  |          | ₽        | 4 | _        | ╀            | _    | ├         | +        | +         | _ | ╁            | _        |          |  |
| -        | 84       | _   | +  |          | ╄        | 4 | -        | +            | _    | -         | +        |           | _ | ╁            | -        | $\vdash$ |  |
| -        | 8        |     | +  |          | ╀        | 4 | _        | ╀            |      | ⊢         | ╁        | +         |   | +            | _        | -        |  |
| $\vdash$ | 8        | _   | +  | _        | ╀        | 4 | H        | +            | _    | -         | +-       | ᅥ         |   | +            |          | -        |  |
| $\vdash$ | 8        |     | +  | -        | ╁        | - | H        | +            | _    | ╁         | +        | 1         |   | $\dagger$    | _        | -        |  |
| -        | 8        | _   | +  |          | ╁        | - | -        | +            | -    | ╁         | ╁        | ┪         |   | +            | -        | $\vdash$ |  |
| $\vdash$ | 9        | -+- | +  | _        | +        | _ | H        | ╁            | _    | t         | +        |           | _ | 1            | _        | $\vdash$ |  |
| $\vdash$ | 9        |     | +  | _        | +        | - | $\vdash$ | +            |      | $\vdash$  | +        | $\exists$ |   | +            |          | 1        |  |
| $\vdash$ | 9        |     | +  | _        | +        | - | -        | +            | -    | ╁         | +        | -         | - | +            | _        | -        |  |
| -        |          | 3   | +  |          | +        | _ | $\vdash$ | +            | -    | +         | +        | ٦         |   | $\dagger$    | _        | t        |  |
| $\vdash$ | _⊢       | 4   | +  |          | +        | - | H        | +            | _    | +         | +        |           |   | +            | _        | 1        |  |
| $\vdash$ | _        | 5   | +  |          | +        |   | H        | +            |      | +-        | +        | -         | - | +            | _        | +        |  |
| $\vdash$ | -        | 6   | +  |          | +        |   | 1        | +            |      | $\dagger$ | +        | -         | H | +            | _        | 1        |  |
| -        |          | 7   | 1  |          | +        |   | ۲        | +            |      | +         | +        |           | Н | $^{\dagger}$ | _        | t        |  |
| $\vdash$ |          | 8   | +  | _        | +        | _ | +        | +            | _    | +         | +        |           | H | +            | _        | 1-       |  |
| -        |          | 9   | +  | _        | +        |   | t        | +            |      | +         | +        | _         | Η | +            | _        | T        |  |
| H        |          | 50  | ┪  |          | +        |   | t        | +            | -    | t         | +        |           | - | +            | _        | 1        |  |
|          | - 1.     |     | 1  |          |          |   |          |              |      |           |          |           |   |              |          |          |  |

|          |          |    |              |              | _  | _        | -            | _        | _        | - | _ |         | _        | -7       |
|----------|----------|----|--------------|--------------|----|----------|--------------|----------|----------|---|---|---------|----------|----------|
| Cla      | ım       |    |              | _            | т- | _        | Da           | ate<br>T | <u>,</u> | _ | _ | -       | -        | -1       |
| Final    | Original |    |              |              |    |          |              |          |          |   |   |         |          |          |
|          | 101      |    | _            | T            | †  | _        | _            | 1        |          | Г | 1 | 寸       |          |          |
|          | 102      | -  | <u> </u>     | H            | +  | _        | Н            | +        |          |   | + | 7       |          |          |
|          | 103      |    | <u> </u>     | ┢            | +  |          | Н            | +        |          | H | + | ┪       |          |          |
|          | 104      |    | ⊢            | ┝            | +  |          | $\vdash$     | +        | _        | H | ╅ |         | -        | -        |
|          | 105      |    | ├            | ╁            | +  |          | ┝            | +        | _        | ┢ | + | -       |          |          |
| _        | 106      | -  | -            | ╁            | +  |          | ┝            | ┪        |          | H | + | -       | _        |          |
|          | 107      | -  | ╁─           | ╁            | +  |          | H            | ┪        |          | H | ┪ | -       | _        | -        |
|          | 108      |    | ╁            | ╀            | +  |          | t            | 4        | _        | H | + | _       | $\vdash$ | -        |
| _        | 109      |    | ├            | +            | ┪  |          | ۲            | 1        |          | t | ┪ | -       |          |          |
| _        | 110      |    | ╁╌           | ╁            | 1  | _        | ╁            | 4        | _        | t | 7 | _       | $\vdash$ | ┢        |
|          | 111      |    | ╁╌           | +            | +  |          | t            | -        |          | ╁ | + |         | $\vdash$ | ┢        |
|          | 112      |    | $\vdash$     | +-           | 1  | _        | t            | -        |          | t | 7 |         | -        | $\vdash$ |
|          | 113      |    | ╁            | +-           | +  |          | ╁            | ٦        |          | t | ┪ |         | _        | $\vdash$ |
| _        | 114      |    | +            | +            | 1  | -        | t            | -        | -        | t | 1 |         | -        | $\vdash$ |
| _        | 115      |    | ╁            | ۲            | +  |          | t            | -        | _        | Ť | ┪ |         | ┰        | $\vdash$ |
|          | 116      |    | $\vdash$     | $^{+}$       | +  | _        | t            | -        | Т        | t | - |         | 1        |          |
| _        | 117      |    | t            | +            | -  |          | †            |          |          | † |   | _       | -        | $\vdash$ |
| _        | 118      |    | ╁            | +            | 7  |          | t            |          | Н        | † |   |         | Т        | 1        |
|          | 119      | -  | +            | +            | _  |          | t            | _        | H        | t |   |         | T        | T        |
| -        | 120      |    | ✝            | +            |    |          | t            | _        | -        | t |   |         | T        | 1        |
| -        | 12       | _  | ╁╌           | +            | -  | -        | +            |          |          | + |   | _       | ┢        | +-       |
| ├─       | 12       |    | ╁            | ╁            | _  | ┝        | $^{+}$       | _        | -        | † | _ | ┝       | 1        | +-       |
| $\vdash$ | 12       |    | ╁╴           | ╁            | _  | ┢        | $^{\dagger}$ | _        | -        | + | _ | -       | 十        | ╁        |
| ⊢        | 12       | _  | +            | $^{+}$       | _  | -        | t            |          | ┢        | † |   |         | t        | †        |
| $\vdash$ | 12       | -  | ╁            | t            | _  | $\vdash$ | †            |          | T        | † |   | Т       | T        | $\top$   |
| Н        | 12       |    | †-           | T            |    | Τ        | †            | _        | T        | 1 |   |         | Τ        | T        |
| Г        | 12       |    | $\top$       | T            | _  | Γ        | †            |          | Γ        | 1 |   | Г       | Τ        | Т        |
| Г        | 12       |    | T            | 1            |    | T        | 1            |          | Т        | 1 |   | Г       | Т        | Т        |
| -        | 12       | _  | T            | +            |    |          | Ť            |          | T        | 1 |   | Γ       | Τ        | T        |
| Г        | 13       |    | T            | $^{\dagger}$ |    | Τ        | T            |          | 1        | 1 |   | Γ       | Τ        |          |
| Г        | 13       | _  | T            | 1            |    | 1        | 7            |          |          | 1 |   | Γ       | Τ        |          |
| Г        | 13       |    | $\top$       | T            |    | T        | 1            |          | Τ        | 1 |   |         | T        | I        |
|          | 13       | 3  | T            | T            |    | 1        | T            |          | Γ        | T |   |         | Г        |          |
| Г        | 13       | 34 | T            | Т            |    | Γ        | T            |          |          |   |   | L       |          |          |
| Г        | 13       |    | I            | T            |    | Γ        | J            |          | L        | J | _ |         |          | Ĺ        |
|          | 13       |    | I            | $\prod$      |    | Ĺ        |              | _        | L        |   |   | $\perp$ | 1        |          |
|          | 13       |    | $\perp$      |              |    | L        | $\perp$      | _        | $\perp$  | _ |   | 1       | 1        | 1        |
| Ĺ        | 13       | _  |              | 1            |    | L        | _ļ           | _        | 1        | 4 |   | ↓_      | $\perp$  | 4        |
| L        | 13       |    | $\perp$      | $\perp$      | _  | 1        | _            | _        | 1        | 4 |   | 1       | 4        | 4        |
| L        | 14       |    | $\perp$      | 1            | _  | L        |              |          | 1        |   | _ | L       | _        | 1        |
|          | 14       | 41 |              |              |    |          |              |          |          |   |   | L       | $\perp$  |          |
|          | 14       |    | I            |              |    | L        |              |          | L        |   |   | L       | ┸        | ⅃        |
|          | 14       | 13 | $\perp$      |              | _  |          |              |          | $\perp$  |   |   | L       | $\perp$  | 1-       |
|          |          | 14 |              |              | _  | L        |              |          | L        |   |   | 1       | 1        | $\perp$  |
|          | 14       | 15 | I            |              | Ξ  | I        |              |          | $\int$   |   |   | Ţ       | 1        | 1        |
|          | 14       | 16 | $oxed{\Box}$ |              |    | L        |              | _        | 1        |   |   | L       | 1        | $\perp$  |
|          | 1,       | 47 |              |              | _  | Ţ        |              | L        | $\perp$  |   |   | 1       | ┸        | $\perp$  |
|          | 1.       | 48 | $\perp$      |              |    | I        |              |          | $\perp$  | _ |   | 1       | $\perp$  | _        |
|          |          | 49 |              | _[           | _  | 1        |              | L        | $\perp$  | _ | _ | 1       | 1        | 4        |
|          | 1:       | 50 | $\perp$      |              |    | 1        |              | L        | $\perp$  | _ | _ | 1       | Д.       | _1_      |
|          |          |    |              |              |    |          |              |          |          |   |   |         |          |          |

If more than 150 claims or 10 actions staple additional sheet here

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